MONTHLY JOURNAL OF THE MUSHROOM GROWERS' ASSOCIATION

# MGABULLETIN

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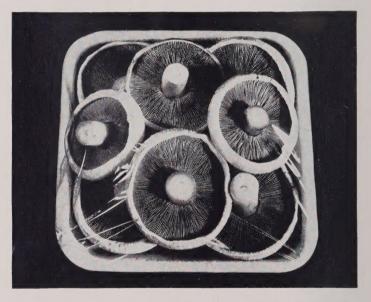
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#### **EDITORIAL**

#### AN EXPANDING ECONOMY (?)

What a rotten Summer it has been! Not the weather—I mean but the Mushroom prices. Looking back I suppose we should have seen it coming. The tremendous expansion of the cropping area in 1957 and 1958 made it inevitable, the weather only made it just that little bit worse. They are still at it—many of these chaps—still expanding and no-one can stop them (with the possible exception of their Bank Managers). They feel, perhaps, that prices have fallen and cut their profits in half, so they must double up to be back where they were. Are they right? Aren't quite a lot of us barking up the wrong tree?

There was a time when I thought that lbs. per square foot per crop was the most vital statistic. Then it was lbs. per square foot

of cropping area per annum. Now I have been thinking.

My guess is that in 1959 we had 20% over production, and my guess is that our present publicity effort (limited by the funds available) cannot hope to increase consumption by more than 5% per annum. The outlook is grim. What shall I do? Should I not turn away from trying to produce more and more mushrooms, and try to produce fewer but better quality mushrooms at a much reduced cost? I am no statistician but if I could cut my production costs 20% with a fall

of only 10% in my crops, I should be better off.

Here are a few possibilities. Slow down my cropping rate, reduce the number of crops I grow per annum (saving manure), improve my quality by using a slower cropping spawn, and running at lower winter temperatures to save fuel. (The 6° between 62° and 56° makes a big difference). I might save labour too. Mechanised composting would probably make little difference to my compost, and it would certainly save labour. I seem to remember that someone at Copenhagen recommended that we should cease chogging the beds. That would certainly save labour. One old established Grower is giving up summer cropping, but my system of growing will not let me do this.

Perhaps, after all, 10 lbs. per square foot per annum is not the

most profitable target after all!!!

RAYMOND THOMPSON, MGA Chairman.

#### MUSHROOM INDUSTRY EXHIBITION, 1959

Worthing, Harrogate, Tunbridge, Brighton, Eastbourne, Southport, Bournemouth, Folkestone: This ain't a monotonous catalogue to irk us But 'ports of call' of our 'travelling circus'; And this year travelling became an art As Folkestone and Hythe were miles apart. The Brains Trust created quite a shuffle By our Chairman's summing-up on truffle-Of truffle trouble there will be none If your mushroom farm is properly run ". " For raw material try the sow The elephant and the farmyard cow " This did The Brains say—things so strange Some vowed they'd listen but make no change. Our lecturer, Rasmussen, by the way, Certainly had a lot to say; The blackboard laden with astounding yields Crashed and crashed like planes in fields; The secret of such yields, be sure, Lay in the composting of manure; Precious additives made it strong And then well cured by composting long,-So long indeed, that at its best, You may use it in a Dining-room Test "; Rasmussen's last words, quite indispensible, Men and Mushrooms are equally sensible ". Now, this little ditty is incomplete So here's some 'Low down' on the 'beat'-With glasses, and glasses, and glass on the floor, Read between the lines and read no more; And who ever heard of another rift-A Blackpool family stuck in the lift; Or the Chairman looking around for Mayors (As growers make contacts at all horse-fairs) He'll find a Super one, at Weston next year, Where the Mushroom 'Circus' will next appear.

FP

#### 9 9 9

#### £47,000-NOTHING

A report in the London "Evening News" of 19th October, under the above heading, read as follows:—

"Mr. Norman Shirley Jenks, of Ennismore Gardens, Kensington, who died last year aged 46, left £47,000 gross, but his net estate is nil. A mortgage on his estate, Pilsdon in Dorset, is the reason. He was a former director of the Reliance Fire and Accident Insurance Corporation".

Mr. Jenks was a mushroom grower and a former MGA member. He was the author of the article "There's Gold in Them Thar' Heaps!" which appeared in Bulletin No. 70 (October, 1955, p. 791) and dealt with the marketing of used compost.



#### THE FOLKESTONE EXHIBITION

Two Mayors at the Reception

The Seventh Mushroom Industry Exhibition and Conference was a great success at Folkestone and Hythe, Kent, on 6th and 7th October, 1959.

Despite the size of the headquarters hotel, the Hythe Imperial, it was quite inadequate to sleep the customary large gathering, and the popular "Get Together" the evening before somewhat overwhelmed the staff. Determination and a disregard for the need for sleep, however, resulted in no-one retiring under-nourished.

The Leas Hall in Folkestone, bathed in hot sunshine, was probably the most attractive venue we have had for our Exhibitions in the past ten years. The ladies attended a fashion display at Bobby's (no serious financial crises have been reported) and drank coffee; the menfolk walked from exhibit to exhibit studying the new and occasionally sampling the matured, finding as ever a host of matters requiring earnest consideration. "And you say women talk!" cried a lady in search of her lost one.

The Brains Trust provided an opportunity for the majority to sit down and listen. Dr. Ronald Edwards took the chair at the Imperial and fed to his team the questions previously handed in by the audience. The "brains" were C. Riber Rasmussen, director of mushroom research in Denmark; Dr. N. W. Hussey and Peter B. Flegg, of the Littlehampton Institute; Fred. C. Atkins, of Yaxley; and Raymond Thompson, Chairman of the MGA. Never before have we had three Life Honorary Members on one panel.

The questions ranged from "What causes Open Veil?", through several reflecting the current anxieties over Truffle ("It has got over the shock of its change of name and has returned to bask in the sunshine").

to the more complex "How can I grow mushrooms?"

There was also the showing of two Danish films, one taken by I. T. Hansen and the other by Erik Fladeland-Nielsen who, happily, was with us to provide a hilarious commentary which included a pictorial



The two competition judges, Mrs. Monica Mawson and Mr. C. P. Chamberlain, hard at work.

demonstration of the secret of shake-up spawning. The series of pictures of delegates sleeping on the coaches as they rushed from one Danish plant to another, during the Copenhagen Occasion, were "pretty shattering", said someone, seeing himself asleep for the first time.

While all this was going on C. P. Chamberlain was steadily at work with Monica Mawson judging the Mushroom Competitions.

In the evening we all had Sherry on the Rates, whether or not we were in dinner jackets, having earned our glass at a formidable official reception by the Mayor and Mayoress of Folkestone, the Mayor and Mayoress of Hythe, and our own Raymond and Priscilla Thompson,

splendidly civic.

The Dinner was an occasion for more talk, and then came the moment of decision: Would the Dance be a success? The Executive had been equally divided as to whether we should have one or not. Practised in skating on thin through a frightful summer, no grower was seen actually to fall, and a show of hands was sufficient to persuade the organisers to do it again at Weston-Super-Mare next year.



L to R: The Mayor and Mayoress of Folkestone, Mr. & Mrs. Raymond Thompson and the Mayor and Mayoress of Hythe.

The record number of entries for the mushroom competitions led to several new names appearing in the prize list, but Broadham Produce were again outstanding; "it doesn't seem to matter whose spawn they use!" whispered a neighbour.

Next morning the ladies were off to Canterbury by motor coach while the rest of us completed our rewarding tour of the many interesting stands. The full list of exhibitors, with the list of prize winners in the competitions, is given at the end of this report.

During the afternoon the result was announced of a golf competition, an innovation on these occasions which Bob Dumbreck had organised for the MGA. The Sinden Cup, a splendid silver bowl, with replica, was presented to the winner by the donor, S. A. F. Sampson. As the successful golfer was Bob Darlington, the witticisms on both sides can well be imagined.

At last came C. Riber Rasmussen's most interesting and excitingly controversial paper on "Some problems in mushroom growing—

practice—theory—research". In appreciation of the recognition accorded him in Copenhagen when, at the final banquet, it was announced that he had been elected a Life Honorary Member of the MGA, he specially prepared this paper and is having copies circulated to all members of the Association.

He was warmly thanked by Peter Stanley-Evans, Vice-Chairman of the MGA.

Rivalry has never been keener than in this year's mushroom competitions and the new conditions governing the Stable Manures Cup resulted, as hoped, in a much larger entry for this particularly attractive trophy.



Mr. C. Riber Rasmussen (left) and Mr. Fladeland Neilsen from Denmark.

Generally speaking there was little doubt that Broadham Produce Company from Oxted, winners of four trophies, well deserved their success with the possible exception of The Poupart Cup where the guiding condition "As packed for Market" appeared to many to have been overlooked by the judges unless of course, as one grower remarked "They do really pack like that at Oxted, which I very much doubt". There was however, no doubting the quality of Broadham's produce who are to be congratulated on their continued run of successes in these competitions. Darland Agricultural Products from Kent, E. N. Smith from Faversham and J. G. Batchelor from Churt, were welcome newcomers amongst the premier award winners and the challenge from the Monlough Food Production Co., Ltd., from Belfast, aided by Mr. R. J. McBriar, ably sustained the Northern Ireland challenge.

The awards were presented by the Mayor of Folkestone and the winners were:—

MGA Cu	p	
1st 2nd 3rd	Darland Agricultural Products Ltd., Darland, Kent Monlough Production Co., Ballygowan, Belfast J. Batchelor, Churt, Surrey	94% 91% 78%
Mount C	ир	
1st 2nd 3rd	E. N. Smith, Plantation House, Faversham, Kent G. St. G. Stedall, Shearway Nurseries, Folkestone, Kent Edwards & Stocking, South Luffenham, Rutland	94% 90% 86%
Broome &	& Green	
1st 2nd 3rd	Broadham Produce Co., Oxted, Surrey Monlough Production Co., Ballygowan, Belfast Darland Agricultural Products Ltd., Darland, Kent	100% 97½% 93½%
Smart Cu	ID.	
1st 2nd 3rd	Broadham Produce Co., Oxted, Surrey R. D. Burrell, Sonning, Berks. Monlough Production Co., Ballygowan, Belfast	100% 94% 93%
Thwaites	Cup	
1st 2nd 3rd	Broadham Produce Co., Oxted, Surrey G. C. Smith, Loddington Farm, Linton, Kent Darland Agricultural Products Ltd., Darland, Kent	98% 92% 86%
Stable M	lanures Cup	
1st 2nd 3rd		83% 80% 79%
T. J. Po	upart Cup	
1st	Broadham Produce Co., Oxted, Surrey	96%
2nd 3rd		90% 89%

#### SHOP WINDOW DRESSING COMPETITION

There were ten entries from Folkestone and Hythe for this competition, judged by Mrs. Fowler, Deputy Mayoress of Folkestone, Mrs. J. M. Boatfield a Director of "The Kentish Express" and Mrs. R. Dumbreck. The competition was organised by the respective Hon. Secretaries of the Folkestone and Hythe Chambers of Trade and the results were:—

1st S. J. Smith, "Wayfield Farm Shop", High Street, Hythe.

2nd H. Shaw, Red Lion Square, Hythe.

3rd Mrs. E. K. Robus, High Street, Folkestone.

H.C. Bodsham Farm Shops Ltd., Sandgate Road, Folkestone.

#### SOME OF THE FOLKESTONE PRIZEWINNERS



Miss Valeria Baker receiving one of the four cups won by The Broadham Produce Co., Oxted, Surrey.



Mr. Gordon Batchelor accepting the Stable Manures Cup.



Mr. D. Clifford of Darland Agricultural Products gained the coveted MGA Cup, here being presented to him by the Mayor of Folkestone. In the centre is Mr. Raymond Thompson, MGA Chairman, looking rather pleased about it all.



Mr. E. N. Smith from Rhode Common, takes the Mount Cup.



Mr. R. H. MacBriar from Saintfield, N. Ireland, had every reason to be pleased with his 2nd prize. 357

About 15,000 "Month by Month" recipe leaflets were distributed through the various shops, together with about 600 large and small "M-M-Mushroom" stickers, 50 "Vote and Eat More Mushrooms" posters in the many shops whilst 30 similar posters were exhibited in various parts of the two towns.

The arrangements for the supplies of fresh mushrooms daily to the shops were made by Major G. St. G. Stedall of Folkestone, assisted by E. A. Gook of Badlesmere and G. V. Allen of Bilting Nurseries, Ashford.

On display at the Gas Showrooms in Folkestone for several days prior to the Exhibition and Conference were the competition cups.

In the competition hall the coconut matting was kindly loaned for the occasion by A. A. Spencer of Greenhill Nurseries, Leeds, who, by so doing, saved the Association an expenditure of about £70.

The general arrangements in connection with this Exhibition and Conference were made by a small committee under the chairmanship of E. A. Gook with G. W. Baker, G. V. Allen, Raymond Thompson, Chairman of the MGA Executive Committee and G. St. G. Stedall.

Behind all the scenes, and in front of several, was the ever-watchful Secretary of the Association, W. R. Alderton, unperturbable, efficient, occasionally dictatorial, invariably courteous. All said: "Good old Winston!" STEEPLE GEE.

#### THE TRADE SHOW

It was agreed by nearly everyone that The Leas Hall at Folkestone provided the best setting so far for the Exhibition and visitors—the attendance was less this year than last, probably because of the Copenhagen trip—were impressed by the colour and general liveliness which was quickly apparent within the building itself.

Among the stallholders were many old and trusted friends and there were too, some newcomers, who, like the old friends in the industry, were warmly welcomed.

Apologies are due to The British Basket and Besto Co., Ltd., and The Murphy Chemical Co., Ltd., for the ommission of their names on the show schedule.

Those exhibiting were:—ARMALINES LTD., Mark Road, Hemel Hempstead, Herts.; THE ATLAS BASKET CO. LTD., Atlas Works, Harpenden, Herts.; BRADFORD FERTILIZER CO. LTD., Whitfield Place, Girlington, Bradford 8; ARTHUR COOMER LTD., Grove Road, Farlington, Portsmouth; THE BRITISH BASKET & BESTO CO. LTD., Cuxton, Kent; E. O. CULVER-WELL LTD., Malling Works, Lewes, Sussex; W. DARLINGTON & SONS LTD., Southcourt Road, Worthing, Sussex; ECLIPSE PEAT CO. LTD., Ashcott, Somerset; THOMAS ELLIOTT LTD., Eagle

continued on page 360



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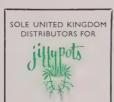
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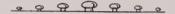


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#### PIERRE GUIOCHON IN AMERICA\*

#### What he told the French growers

Monsieur Pierre Guiochon, the well-known French grower and spawn-maker who is a member of the MGA, visited the United States and Canada last winter and since his return has been speaking to French growers of his experiences. We summarise some of his more interesting observations.

Of the thousand or so growers in the United States and the hundred in Canada, only about 20 grow in trays; the remainder stay on the shelf system. Particularly striking is the broad similarity in methods employed by all growers.

Also remarkable is the use of vast quantities of organic fertilizer as well as the usual nitric and ammoniacal nitrogen. The type of organic fertilizer varies; where maize is grown, much artificial compost is made, elsewhere brewer's wastes are used and, in the wheat belt, the by-products of milling are added. Cereal chaff, in fact, is more popular than poultry manure. The sources of ammoniacal nitrogen are mainly nitrate of ammonia and ammonium salts—except ammonium sulphate, probably because it is so acid.

#### Synthetic Compost

Calcium cyanamide, which allows fixation with less loss than urea, is in general use as a nitrogenous fertilizer in synthetic composts based on hay, lucerne and maize cobs. Urea is rarely employed. Nitrate of ammonia is used extensively; it contains 30—35% nitrogen in ammoniacal and nitrate form. There are also the so-called supplementary fertilizers—hay, lucerne, various flours, animal and vegetable refuse. Town refuse, concentrated and powdered, is much used nowadays.

To illustrate the high rate of supplementation, Monsieur Guiochon quotes the use in the States of 100—150 lb. of nitrogen to 10 tons of manure, compared with the French practice of adding only 40—65 lb. In synthetic composts the amount of nitrogen is even larger.

Straw as a base for composts is being abandoned. The large buyers such as paper manufacturers push up the price, and the quantity available is reduced by mechanical harvesters. In its place much hay is used, frequently with maize cobs. Growers using this combination plus cyanamide, brewers' grains, potassium chloride, superphosphate, etc., say it is more productive than horse manure, and more consistant in performance.

Growers who still use horse-manure often have to store it for weeks and even months. Stored manure breaks down more rapidly than fresh manure, absorbs water better and ferments more quickly.

<sup>\*</sup> Translated from the French Mushroom Growers` Bulletin by kind permission of the author.

#### Composting:

Another feature common throughout the American Continent is the long, narrow stacks. The composting is carried out meticulously to rule. The manure is made very rich and wet, ferments at a high temperature, and is turned very frequently, the interval between turns rarely exceeding two days.

Pasteurizing, or "controlled fermentation", is universal and is a lengthy process. It is generally continued for a period of eight days, even by those who have adopted the Lambert & Ayers Two-Phase System, who precede the gentler fermentation with a 24 hour spell at 70° C. (158° F.).

#### Yields:

The average crop is higher than the French. The American beds are thicker, although the trend is towards reducing the thickness. But on French farms where there is little more than 3" of compost in the trays, those three inches give a proportionately lower yield.

Monsieur Giochon advocated some planned experimentation. "It is not easy to apply modern ideas to the traditional techniques of cave growing", he said, but he felt it was worth the inevitable trial and error, and suggested the experiments be undertaken collectively, based on the following factors:

#### Eleven Rules:

- 1. The enormous addition of nitrogenous fertilizers (1.5 to 2% nitrogen, on a dry-weight basis, before pasteurization).
- 2. The use of organic nitrogen, but not excluding sources of ammoniacal nitrogen.
- 3. The low, narrow stacks.
- 4. The high humidity in the stacks, with frequent turns every 2 or 3 days.
- 5. The tendency to reduce the outside composting period to 9—10 days for manure and 12—15 days for synthetic composts.
- 6. A gentle pasteurization (52-55° C.-131° F. maximum) for at least 8 days, with a trend towards more air during pasteurization.
- 7. The achievement of large first flushes, generally unknown in France.
- 8. Casing with a clay-sand without any added limestone, applied dry and continually watered until pinheads appear.
- 9. Frequent light watering of the casing with a particularly fine rose, probably because the house humidity is low.
- 10. Different ideas on ventilation, with the emphasis on air movement rather than fresh air intake.
- 11. Frequent analysis of the compost for N, P and K.

#### Mechanization:

Contrary to widespread opinion, the American growers are slow to mechanize. The dominant objective is always simplification, which is why mechanization is so well applied. "Of course I have seen marvellous machinery", said Monsieur Guiochon, "but what interested me more was the detailed organization which shows how problems have been studied before machines were introduced. Machinery to convey the compost to the shelves has been perfected. You can go to 20 farms of equal size and see the same machine giving the same performance in the same standard time. Turners are used everywhere, without exception: they are of the manure-spreader type, but cleverly adapted".

#### Custom Composting and Casing:

The American is not interested in improvising for himself; he obtains what he needs from specialists. There are firms who specialise in preparing natural or synthetic composts ready for peak-heat. These are delivered to the farm gate the day the grower needs them. Other firms specialize in casing soil; they select soils, riddle them, sterilize them and supply ready for the beds. On this point, the speaker thought the French should consider the problems of particle size and colloidal content; he felt there was much more to be learned about the casing layer.

#### Hygiene:

The practice of sterilizing the compost before emptying the house is universal. As soon as cropping has finished, every grower passes steam through his houses. He is no longer troubled with problems of disease arising from the spent compost.

The following precautions are also taken: The pickers are provided with washed and disinfected gloves as well as overalls, and everywhere there is concrete to facilitate washing down and prevent the establishment of disease organisms. The air for ventilating the houses is invariably filtered to exclude pests. And, of course, trashings, etc., are carefully removed and destroyed.

On principle the grower does not treat his beds with insecticides; he prefers prevention, and relies largely on steam. There is no need, save in exceptional cases, to resort to phytosanitary products. Some dusts come under the heading of preventatives and are used weekly, but even they are not applied directly to the beds.

#### Mushroom Soup:

Monsieur Guiochon thought the French had little to learn from the canning industry in America. Referring to the enormous quantity of mushrooms which went into soup, he related that the Campbell Soup Co. used more than 20 tons a day in their factories. "This Company influences the market since their needs are so considerable", he said. "Their buying price is in the region of 1/11 a pound, with stalks uncut. They grow about one third of the mushrooms they need".

#### Spawn:

Spawn is produced by a dozen laboratories. About 70 per cent. of the spawn used is grain, the remainder being tobacco-stem or manure. White strains are general, although there is a limited demand in the west for creams.



FOLKESTONE COMPETITIONS
OCTOBER 1959

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#### MUSHROOMS IN MOSCOW

By Monica Mawson

There is one thing which Capitalists and Communists have in common—a love of mushrooms!

Moon rockets apart, it soon became evident that people in the U.S.S.R. lacked our variety and abundance of normal luxuries. And in food they had, perforce, to concentrate upon only a few items. Undoubtedly one of the most popular was mushrooms—fresh, pickled, and dried.

It is typical of their mode of life that Mrs. Moscow (or Mrs. Any Town) can buy only what the State decrees, at the price the State decides, since every shop *and* small outdoor stall (of which there are numbers all over large cities) are State owned.

And the State issues pickled or dried foods only when those commodities are out of season. When they can be bought fresh Mrs. Housewife has to buy them as such. If she SHOULD fancy a change its just too bad...

I was told that one of the favourite forms of home entertainment was to have friends in of an evening for vodka and a chat. But neat vodka has a reputation for affecting the head in an unfortunate manner, so as a "soother" they like to serve hot boiled potatoes with dabs of butter and "lots of little pickled mushrooms, very good". Promptly I thought of the MGA, and asked my guide if we could buy a bottle or two. We tried, but without success "only in the winter you see, because now we can buy fresh mushrooms you see"—I did!

The mushrooms that are pickled are "buttons", and from experiences in hotel and restaurant kitchens, I found that the Russians use different strengths of vinegar. The chefs for several recipes stressed that it was 3, 5, 10, or 20% vinegar which was being used. Therefore, from what I could gather by questioning, I suspect that that used for mushrooms was of a low percentage.

Dried mushrooms are also very popular in the winter, particularly with people living any distance from shops. These are never the wild Field mushroom, or their cultivated sisters, but the wild *Boletus edulis*.

Deep frozen foods as we know them are unheard of in the U.S.S.R. They had never seen frozen vegetables, though they have deep frozen meat, fish, and a small selection of fruits, but these are partially thawed before being sold to the public unpackaged, and in small portions.

I spent some time in the kitchens of hotels and restaurants with my own interpreter, and was interested to see that much of the garniture was done with sliced button mushrooms. Salad ingredients too often included the same sliced "buttons", though the basis of most of their salads—apart from the cabbage and tomato permutations—was potato.

I never saw "flats" being used in a commercial kitchen, though they were sold in the shops. But it needed patience and determination to get within close proximity of any food counter, for the length and breadth (very literal!) of the incessant queues. And I must add by way of interest, that any questions to any guide regarding these queues evoked either blank surprise, or a negative shrug, but *never* an answer.

The most popular recipe for the home cooking of mushrooms seemed to be the following:—

Mushrooms in Sour Cream (for 4)

½ lb. mushrooms (cups or flats) 3 peppercorns

1-1½ oz. butter 1 gill Smatana (or sour cream or

2 tablespoons water yogurt)

1 bay leaf Boiled potatoes (quantity to taste)

½ teaspoon salt Chopped parsley

Wipe the mushrooms and cut the stalks level with the caps, then slice the stalks.

Melt the butter, add the water and seasoning ingredients, then the mushrooms. Cover the pan with a lid and allow to simmer gently for 4-6 minutes, turning over the mushrooms once. Stir in the Smatana and continue simmering for a further 3-5 minutes.

Pour over warm boiled potatoes and sprinkle with parsley.

#### FERTILIZER SUBSIDIES

It has recently become apparent that the Ministry of Agriculture is reluctant to allow fertilizer subsidies to mushroom growers, and the proviso that any compost in which fertilizers have been used has to be spread on the claimant's own land is being strictly adhered to.

Through the NFU the MGA has now submitted a case to the Ministry on behalf of all mushroom growers, claiming that, irrespective of the claimant's ability to spread the compost on his own land, these fertilizer subsidies should be available to all mushroom growers.

The subsidies are allowable only on nitrogenous or phosphatic fertilizers.

In brief, the case prepared by the MGA submits the following:-

 That as the subsidies concern only nitrates and phosphates, and as these fertilizers are for the benefit of a specific crop, leaving little or no residual benefit for subsequent crops, such subsides should be allowed mushroom growers.

2. The fall off in the general quality of horse manure following the virtual disappearance of the heavy horse make the use of fertilizers

essential if a suitable compost is to be prepared.

 The use of fertilizers is particularly important in the production of synthetic compost.

4. The fertilizers mentioned are needed by the mushroom as a direct nutrient.

The addition of fertilizers materially assists the composting process and a better compost produces a better crop.

6. With the many advances now being made in the production of crops without the use of land as such, it appears to the Association that a review of the general position would perhaps not be inopportune.

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#### More nourishment

If you use Racing Stable manure, or other manure in which excess straw is present, the use of Adco "M" is strongly advised. The fermentation of this type of manure takes place more rapidly and effectively when Adco "M" is added. You get a more thorough breakdown of the strawy material, which then becomes available as food for the growing spawn. So your compost provides more nourishment for the mushrooms, and you get a bigger crop.

#### Better spawn run

Adco "M" produces a good quality compost of even texture. It provides an

ideal medium for spawn run and helps to avoid greasy conditions, lack of acration, and over wet compost – all of which delay mycelium growth. The spawn is able to make more rapid use of the food provided. It establishes itself more quickly and this is again a great help in preventing diseases and weed fungi. The faster the spawn grows and fills the compost the less likelihood is there of disease and weed fungi becoming serious competitors. A quick spawn growth also gives a quicker ultimate production.

You can have freedom from uncertainty in the composting process – by using Adco "M". It will pay you hands down. Adco "M" is specially formulated as a result of years of experiment, for the specific purpose of making mushroom compost. It can be used for composting with straw alone, if you wish. Or it can be used to compensate for variations in the quality and texture of your manure supply. Adco "M" provides the way to better mushroom compost every time.

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#### WORLD'S PRESS DIGEST

Mushrooms were in heavy supply after last week's demand, but suppliers had failed to forecast the buyers' needs accurately and there were a lot left over (Nurseryman Seedsman, August 27/59). On Saturday, salesmen couldn't get enough buttons at 6s. 6d. The reason is thought to be the hot spell followed by several cold nights. This level was thought by experts to be the highest since the war (*Grower*, August 5/59). A large influx caused prices to fall to a medium level (Commercial Grower, September 11/59). Movement generally is slow (Fruit Trades' Journal, September 12/59). In the vegetable section, except for mushrooms, everything was in fair demand (Nurseryman Seedsman, September 17/59). Trade back to normal, with prices of the open making as much as the smaller cups and buttons (Fruit Trades' Journal, September 19/59). Mushrooms are steady, and should remain so until the catch-crop growers come in about November. This usually causes a glut and, of course, a price drop. As the tomato crop is more forward the glut may come earlier than usual this year (Grower, September 26/59).

The situation was reached towards the end of August and in early September when the mushroom beds were suffering (a) from exhaustion and (b) from an almost complete inability to recover quickly and flush into crop. The story from then on is quite simple. The great majority of mushroom growers had little or nothing to send to market. I have no doubt that one of the exceptions to these general conditions was the fortunate cave grower in the West country, simply because his caves are not subject to the general growing conditions. One of the real lessons to be learned here, surely, is the value of insulation, although I am not suggesting that insulation, or rather the lack of it, was alone responsible for the lack of control.

Commercial Grower, September 25/59.

Both wholesalers and retailers complain that when tomatoes are very cheap the public lose interest and buy fewer.

John L. Green in Commercial Grower, Sept. 11/59.

Another factor must be given the serious attention of the producer. I make no apology for mentioning it — the matter of the retailer's margin. Control of the price of our products should be in our hands until the product is in the housewife's basket.

J. D. S. in Commercial Grower, September 11/59.

There are only two proposals which can completely solve the problems of British Horticulture, (a) the process of economic elimination, in which the inefficient and those unwilling to reform go to the wall and the Bankruptcy Court, without temporary anodynes of tariffs, grants or subsidies, or, (b) a complete reorganisation of the industry, with compulsory grading standards equal to those applied by the Dutch Export Board, for example; with the risk of the producer ending on delivery at the nursery, the distributor to take the risks of subsequent distribution which he has largely evaded hitherto.

Edward Hinchcliffe in Fruit Trades Journal, September 26/59.

The workers' representatives on the Agricultural Wages Board for England & Wales gave notice last week that at the October meeting of the Board they will present claims for an increase in the minimum wages rates and a reduction in the number of hours in the standard working week.

Nurseryman Seedsman, September 3/59.

Is it difficult to grow mushrooms indoors? Mushroom growing is a highly skilled job and should not be attempted without some experience. It is also a costly undertaking as the manure required is very expensive.

Farmers' Weekly, August 28/59.

Ammunition boxes pressure-treated with pentachlorophenol and tanalith developed small amounts of decay when exposed to the weather in Wisconsin for five years; those given copperized chromated zinc chloride or celcure remained decay-free. The pressure treatments were in general more effective than dipping. Inorganic salts generally caused softening at the surface. Pentachlorophenol, 5% plus a water repellent, markedly reduced the decay rate. Wood treated while green retained little preservative.

A. F. Verrall in Forest Products Journal, 9, 1, pp. 1-22, 1959.

During investigations of the suitability of glass reinforced plastics as a form building construction material, a 24 inch wide building section of reinforced fibre glass and foamed plastic was developed, having a 40 ft. clear span, 10ft. walls and a 100 ft. radius roof curve. The rigid frame can be erected on concrete footings with simple anchor straps and back fill providing adequate foundation support. It is concluded that a laminate of epoxy and polyester resins reinforced with glass cloth are very suitable for this purpose. (Agricultural and Horticultural Engineering Abstracts, Wrest Park) R. A. Aldrich & J. S. Boyd in *Quarterly Bulletin of Michigan Agricultural Experiment Station*, 41, 1958.

With their new extension—it is hoped to have the buildings in production by the late autumn—the Broadham Produce Co. Ltd's. mushroom farm at Broadham Green, Oxted, will be trebled in size. The extension will add roughly 50,000 sq. ft. to the growing capacity and, as a result, put the farm among the ten largest in the country. It is expected to raise the average weekly production of mushrooms to between 5,000 and 7,000 lb.

Surrey Mirror, September 11/59.

The initiation of market research by the NFU, while perhaps long overdue, is something that body should be complimented upon. Let us hope it is the beginning of the end of that frightful old British habit of giving the customer what someone else decides is good for him. Recently an *ad hoc* gathering of so-called cookery experts chose a horticultural product which the industry had largely been forced to discard because, while its quantity was first-class, its quality had no customer appeal. It must be scientifically-approached research and not light-hearted guessing.

"Packman" in Cheltenham Chronicle, September 12/59.

"I like mushrooms, you like mushrooms, everyone likes mushrooms", said Marty Wilde, explaining to a surprised television interviewer why he'd like to open a shop selling cooked and uncooked

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mushrooms. I asked Marty the way he liked them best. "Simple", he said, "I don't like them messed about too much. My mother does them with poached eggs and they're lovely".

Daily Express, September 21/59.

E. H. Gardener has said that without tomatoes there would be no glasshouse industry. As things stand to-day he is undoubtedly right. The answer for the future seems to lie in some form of compromise. Tomatoes must form the bulk of glasshouse production for many a year yet, but more and more thought must be given to the problem of changing the balance. Drastic changes could upset the supply and demand situation in other crops.

Nurseryman Seedsman, September 24/59. The problem of industry is no longer to sell what it makes—but to make what will sell. With these wise words Marplan, new independent research company, was in business this week. Its aim: To discover "why, what and how people buy, how much can be sold

to them at what price, how, and to whom ".

Scope, September 12/59.

If a grower visiting the Southport Flower Show was not careful he could have missed gems like Warmafoam insulation which reduces fuel consumption by 40 per cent. and is made of waterproof fugusand-mould resistant material (Geo. Monro Ltd.).

Nurseryman Seedsman, September 3/59.

Activair Ltd. brought a new solid fuel heater to win an Award of Merit at the Southport Flower Show. Developed for the Irish Peat Board it burns peat for a week without feeding and is worked by a fan. The firm was also showing rigid plastic ducting for the now-established Activair heating system. At the moment it is in the development stage, but a length of it has been brine soaked for six months and found to be still dry. And it is completely non-inflammable.

Nurseryman Seedsman, September 3/59.

The spreading of a level heap either in a pit, on the floor or in a vehicle is effected by a spreading conveyor manufactured by Hill & Dolman (Engineers) Ltd., of 34 Orchard Street, Norwich. As well as being easily swung laterally, the conveyor can be moved backwards and forwards to increase the working area by an operator turning a handle. The machine is fed from a permanent central chute and powered by a 1 h.p. engine, the conveyor belt being cleaned on both sides during the operation.

Industrial Equipment News, August/59.

The Breeza humidifier is light and portable and is applicable to any industry where the humidity of the atmosphere must be increased independently of the temperature. The degree of atomisation, it is claimed, is so fine that it can be compared to steam. Price £58 10s. 0d. from London Fan & Motor Co. Ltd., 27 Brecknock Road, London, N.7.

Industrial Equipment News, August/59.

The Coronet draughtless air distributor is a ceiling mounted unit designed for use with air conditioning, heating and ventilating systems.

Its object is to insure that incoming air is thoroughly mixed with room air, but without causing a draught. Manufactured by Thermotank Ltd., Helen Street, Glasgow. *Industrial Equipment News*, August/59.

A steel nut embedded integrally into an Alkathene roofing washer is known as the Seelanut. It has been designed to take the place of the steel nut, Uniseal washer and galvanised metal washer previously used with the hook bolt in fixing asbestos cement sheeting, and it provides a watertight joint with non-corrosive properties, states the U.A.M. Group Advisory Service, Tolpits, Watford, Herts.

Industrial Equipment News, mid-September/59.

Tape recorders multiply like mushrooms, and are growing smaller.

Maurice Wiggin in Sunday Times, August 30/59.

#### Correspondence

#### PUBLICITY

We are in receipt of your letter regarding Compulsory Publicity Contributions.

We strongly disagree with the proposal. We have stated before and say again that we feel that a lot of hard work and good money is being thrown down the drain.

Any impact 250 Grower Members can make with the amount of money they can afford to give is just ridiculous.

Some of us have been in a position to see the Tomato and Cucumber Board's publicity effort, with thousands of members and many thousands and thousands of pounds spent, end up in what? everyone being happy! not on your life. Instead, a very large number of angry growers are forming an abolition group to have the whole lot thrown out on their ear.

Now let us have a look at the "Lion and the Egg" publicity effort, which again we are forced to contribute to. Again thousands and thousands of pounds have been spent to raise the national egg consumption by 3%, leaving the Egg Marketing Board with millions and millions of eggs which they know not how to dispose of, the net result of which, for the Producer Members, is the lowest price return for years and a letter from the Board, which we do not propose to quote, but all of which boils down to this: That due to "enterprise and progress" we are keeping too many hens and embarrassing the Board with millions of eggs they don't want. If our flocks are not cut down by at least a third we can soon count ourselves out of business and we have only ourselves to blame, thank you very much!

Now let's get back to mushrooms. Suppose, just suppose, that we dig very deep into our pockets and manage to create a demand for mushrooms at a steady average price of 2/9d. to 3/- per lb.

We already know that people with lots of brass think that the Mushroom Business is a sound investment at those prices They don't seem to mind the expense of increasing production by a million lb. or so now and again. So what is the result?—a steady market, more and more "investors", more and more mushrooms, more and more salesmen pleading for you to send more mushrooms for, maybe a week or so. Then comes the message "We are absolutely snowed under!" The publicity paper bags do not seem to be doing the trick. So what have we? It's the "egg scramble" all over again.

What we now ask is that the Executive Committee should think again before ordering members to cut their own throats.

ORRITT'S, Burscough, Lancs.

EDITOR'S NOTE: There is no evidence to support the suggestion that outside capital is being attracted into the industry. What expansion there is in mushroom production is coming from within the industry and not from without.

#### PUBLIC RELATIONS

Mid-September to Mid-October

One of the most important functions of the Public Relations Officer is to make new contacts and to be in touch with the Public through the Press, the Retailers, the Colleges and Schools and many other channels. Members will remember the successful luncheon given to the Women's Press Club and the Tea Centre venture. Since then the contacts made have been most beneficial to the Association. It may interest members to read about the activities which have taken place during the last month to increase the Public's interest in mushrooms and to establish new contacts in the various channels.

**National and Provincial Press:** Mushrooms have been mentioned in 150 different articles during the last month. An attempt by the MGA to encourage the Editors to use mushrooms in the cookery columns has been made by distributing a Press handout concerning several European *Mushroom Recipes*.

Wall Charts: 'The Story of Mushrooms' will be illustrated by a wall chart, which will be widely distributed throughout the schools and colleges in the British Isles. It is hoped that this will encourage teachers to use mushrooms as a topic for lessons and lectures. Plans are still in the early stages.

An 'At Home': Mr. Scrimgeour, a grower near Bournemouth, encouraged his retailers to take a greater interest in mushrooms by inviting them to a tour of his farm and tea in the garden. A scheme which other growers might try.

Women's Press Club: Mushrooms became the centre of attraction by their late arrival for a tombola at a party given by the Women's Press Club. Two journalists offered to buy the complete 10 lb. before the prepacks had reached the table. New contacts were made with the Butter Council and English Cheese Council and several journalists.

**B.B.C.:** The MGA were asked to prepare the answer to the question 'Should mushrooms be peeled before cooking?' and this was read in "Woman's Hour" on 5th October.

**Central Publicity Services Ltd.:** Arrangements have been made by the Central Publicity Services Ltd. for a cookery play to tour the South West of England for the next three months. Two of the four recipes in this play include mushrooms and the MGA is supplying fresh mushrooms for each performance.

Folkestone: The retailers and housewives in Folkestone & Hythe during the Conference days took an interest in the Association's Window Dressing Competition for the most effective mushroom display. Mr. T. A. Smith of Hythe, who won the first prize, was not only delighted with his cheque, but was keen to tell us that he had sold 24 lb. of mushrooms on the day of the competition, in comparison with his previous daily sales of  $1\frac{1}{2}$  lb. In addition his total shop sales for that day had doubled, additional custom being attracted to the shop by the mushroom display.

Valerie Baker.

## AFTER THE 4TH INTERNATIONAL CONFERENCE AT FOLKESTONE

Thoughts of a Frenchman

The 4th International Conference at Copenhagen was a triumph, a triumph of organization, discipline and of the ever growing interest taken by Scientific Research in this culture, a triumph of courtesy, of good humour and of the excellence of the welcome. Everything was arranged to render the sojourn of the "Congressists" useful and agreeable.

This visit to Copenhagen and Denmark was a revelation to most of us.

At last a triumph for the spawn manufacturers whose names were largely displayed. This publicity was a trifle too showy; rather surprising in a Congress of this quality.

The subjects dealt with included: Composting, Ventilation, Genetics, Casing, Moisture, Metabolism, Spawn, etc.

Ventilation in conjunction with spawn and compost metabolism and spawn production were the most surveyed subjects.

One of the last lectures insisted on the necessity to study the strains, their behaviour and their selection.

It seems that the French, whose rôle was keeping a bit in the background, have still a word to say on this point.

We feel to be sensibly in advance in the research and the improvement of mycelial strains in France, when elsewhere the necessity of this kind of research has only now been discovered.

If our lectures appeared rather dull beside the sequence of brilliant accounts of the orators at the tribune of the Congress, we may recall some French performances in 1958, which I mention as a memorandum, as a reminder that we are still alive.

-95 million lb. of mushrooms, worth some 10 million £.

Can anyone beat this?

<sup>-45</sup> million tins of canned mushrooms worth 10 million £ (without mushroom soup).
-5 million lb. of mushroom spawn, worth £550,000.

## MUSHROOM FARM WHICH SPECIALISES IN PRODUCING RECORD YIELDS

As was expected, the heavy yielding shelf farm of Mr. J. G. Batchelor at Churt in Surrey, attracted a great deal of attention on the occasion of a farm walk, held on 23rd September, and organised by the Kent, Surrey and East Sussex Area Committee of the MGA.

Borrow House Farm is situated in most delightful countryside in the neighbourhood of that well-known beauty spot, The Devil's Punchbowl, and this fact, backed by sunny weather, made the visit all the more pleasant.

The extremely high yields per sq. ft.—between 10 lb. and 11 lb. per year—were obviously the focal point of interest and particular attention was paid to the composting process carried out on this farm.

Mrs. Batchelor, conducting one party round the farm, observed that the records of one house showed a crop yield of 2.8 lb., and she added, "I don't quite know what happened there".

The beds themselves are bowed, from 10 inches at the outside to a depth of about 15 inches in the centre.

The description of the farm, which follows, is reproduced by kind permission of *The Commercial Grower*.

Between 10 lb. and 11 lb. of mushrooms per square foot per annum from 10 inch beds, is the current production average at Mr. J. G. Batchelor's Borrow House Farm, Churt, Surrey, which was visited by members of the Mushroom Growers' Association recently.

Mr. Batchelor first became interested in mushroom growing ten years ago, when friends suggested that a sandstone tunnel which he has in the twenty-five acre grounds of his house, would be ideally suited to the cultivation of the fungi. The tunnel extends into the side of a hillock for some 160 feet, and is over 6 feet high; it was dug in 1865 by an eccentric astronomer, who desired a private observatory.

Mushroom experts agreed that the tunnel would be ideal for a small amount of mushrooms, but suggested that Mr. Batchelor's tree-covered land could be used for production on a larger scale. Mr. Batchelor had sold his business in London to volunteer for the R.A.F. during the war and was reluctant to return to town life, so he decided to follow their advice and erected two 40 ft. by 18 ft. asbestos houses, to start mushroom growing.

#### Many Pit-Falls

He fell into all the many pit-falls that await the recruit to this tricky business, but by trial and error, and starting in a comparatively small way so that he had a cash reserve to meet the crises, he has been able to build a very successful undertaking.

The enterprise now has eight cropping houses, which are insulated by fibre glass covered with roofing felt on the outside. There is a total cropping area of 10,000 square feet, three tiers of shelving being arranged down a centre gangway within each house. Creepers have been trained over the houses to assist air temperature control, and work is scheduled to start on another four houses this week.

Some fantastic yields have been obtained in recent seasons, the record being 5.61 lb. per sq. ft. which dates from September, 1958. This particular crop was allowed to run to 13 weeks owing to the Christmas holidays. Out of the last 22 crops the average figure for all houses, at the end of 11 weeks cropping, exceeds 4 lb. per sq. ft. Retrospectively, 2 lb. per sq. ft. is a sample of the yields obtained in 1956, and 3.4 lb. per sq. ft. was the highest figure for 1957.

Obviously, progress has been rapid; here is a case where mistakes were never made twice. Mr. Batchelor's son Gordon, the second in command at the farm, attributes their present success to the change over from long to short composting techniques in 1958.

These growers are convinced that the basis of good mushroom growing is good compost making. Unless spawn is set in perfect compost, the end result will be unsatisfactory. With the short composting, they follow Dr. Sinden's recommendations to the letter.

A Chatsworth manure turner is used, and the basic ingredients of the compost are: 2 cwt. poultry battery manure per ton, a cubic yard of broiler house litter per stack (the compost is initially turned into a stack of 6 ft. by 5 ft.), together with approximately 7 tons of medium horse manure per stack.

The composting is usually started on a Monday, and the poultry battery manure is watered into the compost, using a high pressure hose. After passing through the machine, the stack is left until the next Friday to settle down. Then it is turned again, one cwt. of gypsum is added per ton, and it is re-stacked this time in stacks of 4 ft. by 5 ft.

The following Monday, the compost is turned yet again, by hand in order to ensure that it is thoroughly mixed, and another two days later it is considered suitable for transference to the cropping houses. They like the compost at this stage to have an appearance of freshness.

The next phase of composting, peak heating, is a highly important one. The compost is first of all levelled off in the beds within the cropping houses, and a Maywick Calor gas heater is turned on at low pressure. By this means, the air temperature of the house is gently raised in 12 hours to a temperature of 110 degrees F. Mr. Batchelor stressed the importance of adequate ventilation at this stage, otherwise re-absorption of gasses takes place within the compost. All cropping houses are equipped with electrically driven fans, and plenty of air inlets and outlets are provided.

The heaters boost the temperature of the compost on the shelves to 140 degrees F. for 96 hours; the temperature in the house is kept at

115 degrees F. for the next two days, and then the heat intensity is dropped to 75 degrees F. The compost having been thus conditioned, the beds are planted up with manure spawn, which has given superior results at Borrow House to any other type.

#### Fortnight's Wait

Casing is carried out about 14 days later when the spawn has run, and for this a mixture containing equal parts by volume of Danish peat and chalk is employed, being applied to a depth of  $1\frac{1}{2}$  inches.

About a ton of compost is used per 150 sq. ft. of shelf at ten inches depth, which it is estimated is nearly half the quantity needed when the long composting method was practised.

Picking usually starts about 35 days later, although the first flush has taken slightly longer this summer due, it is thought, to the hot weather. As soon as picking is finished, the beds are "cooked out", using 40 gallon drums filled with red hot coke and stood in the houses. The air temperature within the house is thus boosted to 200 degrees F., being maintained at that intensity for 48 hours, and the temperature of the compost during that time will rise to 140 degrees F.

In the opinion of Mr. Batchelor, this "cooking" process enhances the nutritional value of the matured (used) compost by making the nitrogen content more available, and the bulk is sold to neighbouring farmers, although a small quantity is retained for use on a small market garden run in conjunction with the mushroom farm.

When the compost has been cleared off the shelves, the houses are thoroughly cleaned out, being pressure-hosed down, and sprayed with a mixture of formaldehyde and ECA. SDNOC is used for dipping the shelving boards. Usually the houses are made ready for cropping again seven days after the finish of a crop.

Regarding diseases, a few years back the incidence of Mat disease was approaching alarming dimensions on the farm. The change over to short composting seems to have assisted in the control of this menace: possibly the high temperatures used in peak heating. Mat disease does not cause any concern now. As a preventive, copper sulphate is added to the compost during the initial turning, at the rate of 1 lb. per ton.

Mummy is a persistent problem, fortunately on a relatively small scale. Mr. Batchelor has noted that this disease usually appears between the fourth and fifth flush of a crop, especially when the earlier flushes have given mammoth yields. It only seems to occur on the lower tier beds, and although the crop on the shelf in which it occurs is invariably a complete write-off, it never spreads to the rest of the house. Nobody has yet pinpointed a cause of this disease, but Mr. Batchelor wonders if it might arise when two or three exceptionally heavy flushes upset the balance of the compost.

#### Truffle Troubles

In the past, truffle and bubble have been troublesome, but use of chlorate of lime has afforded complete control.



all the grains of Darlington's grain spawn sold on the 28th August 1959 were placed end to end they would stretch for 190 miles—the distance from Dover to Dorchester.



That's quite a distance driving under 1959 conditions, and it's a tremendous lot of spawn. Turn it into pounds of high quality mushrooms

per square foot and you'll have some idea of the number of enlightened mushroom growers who are now using the best grain spawn on the market.

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Watering is started once pinheads are seen, and the amount given and the frequency of application are varied according to the appearance of the bed. Sodium hypochloride is added to the water at the rate of 400 parts per million.

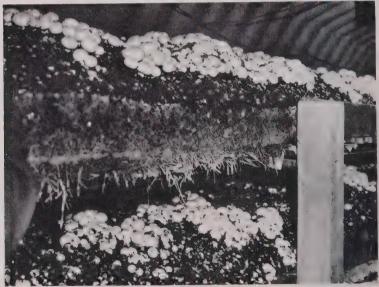
Four full-time men are employed and two women. Eighty per cent. of the output goes to Covent Garden, the remainder being sold to a local wholesaler.

Another enterprise at Borrow House is the 10,000 Christmas tree plantation, sited on soil ideally suited to this speciality. A number of 4 foot 6 inch trees sold last



One of the houses showing a fine display of mushrooms.

December realised high prices, so this undertaking, like the mush-room farm, has the ring of success about it.



This splendid crop of good quality mushrooms was seen by the visitors. Note the spawn run and depth of bed. The house picked 1\(\frac{1}{2}\) lb. per sq. ft. in the four days immediately following the farm walk.



Mrs. J. G. Batchelor explains a particular point to a group of growers.



Mr. Gordon Batchelor explains what goes on at Borrow House Farm. Mr. A. D. Jones, extreme left, organised the walk.



The delightful surroundings for Borrow House Farm are typified in this picture. Dr. E. Carew-Shaw leads this group and Mr. J. G. Batchelor (light suit) is in the centre with Mr. R. D. Burnell from Sonning, on his left.

#### 1959 PUBLICITY FUND CONTRIBUTORS

				-	
			£	S.	d.
Dan Wuille & Co. Ltd., Covent Garden Market, W.C.2			100	0	0
Francis Nicholis Ltd., Smithfield Market, Birmingham			157	10	0
R. E. Jenkinson Ltd., Covent Garden Market, W.C.2			105	0	0
Wm. Morgan & Co. Ltd., Salesmen, Custom House Street, G	Cardiff		10	10	0
Ernest White Ltd., Salesmen, Kirkgate Market, Leeds			5	0	0
C. W. Tooley & Son Ltd., Salesmen, Nottingham			2	2	0
Geo. Jackson & Co. Ltd., Smithfield Market, Birmingham			50	0	6
Ed. H. Lewis & Sons Ltd., Covent Garden Market, W.C.2			5		0
Wm. McGrattan & Sons Ltd., Smithfield Market, Manche			5	5	0
G. W. Jackson (Cardiff) Ltd., 11 Custom House Street, C	Cardiff		10	10	0
C. Snowdon & Co. Ltd., Castlefolds Market, Sheffield			12	10	0
E. Broadbelt Ltd., Smithfield Market, Manchester			15	15	0
Dan Wuille Ltd., 79 Candleriggs, Glasgow C.1			25	0	0
T. J. Poupart Ltd., Covent Garden, London, W.C.					0
Reuben Levy Ltd., 88 Spitalfields Market, London, S.E.1				13	
Jackson & Lakin Ltd., Nottingham			3	3	8
Sundriesmen:—					
Bradford Fertilizer Co. Ltd., Whitefield Place, Girlington,	Bradfo	rd	10	10	0
Shirley Organics Ltd., Vicarage Wharf, Battersea, S.W.11			25	0	0
*Cnown Mondontos					

#### \*Snawn Merchants:-

Monlough Food Production Co. Ltd., Ballygowan, Belfast. H. Mount & Sons Ltd., Chichester, Sussex.
H. Mount & Sons Ltd., Littlebourne, Canterbury, Kent.
W. Darlington & Sons Ltd., Southcourt Road, Worthing. Sussex.
White Queen Ltd., Yaxley, Peterborough

\*Amounts collected by spawn merchants are not for publication.



#### LAST MONTH'S PUBLICITY CONTRIBUTIONS

\*†Spawn Merchants :--

W. Darlington & Sons Ltd., Southcourt Road, Worthing, Sussex. Monlough Food Production Co., Ltd. Ballygowan, Belfast.

H. Mount & Sons Ltd., Littlebourne, Canterbury. S. A. F. Sampson Ltd., Oving, Chichester.

White Queen Ltd., Yaxley, Peterborough.

Salesmen :-

†Jackson & Larkin Ltd., Salesmen, Wholesale Market, Nottingham.

£10 10 0

Sundriesmen :-

H. Gough & Son, Fishergate, Norwich. \*Amounts collected by spawn merchants are not for publication.

†Previous contributions already acknowledged.

#### 1960 FULL SCALE CONFERENCE

Provisional arrangements have been made for the holding of a full scale conference at The Grand Atlantic Hotel, Weston-Super-Mare on 11th, 12th and 13th October, with the usual get-together on the evening of 10th October. The conference will be restricted to MGA members only, their wives etc.

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MUSHROOM TRAYS. We have regular supplies of Danish and Norwegian fish trays-for all your requirements. Please contact J. G. Rodgers, 4 Salisbury Row, London S.E. 17. Telephone Rodney 3640.

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